ATTY DOCKET NO. APPLICANT

APPLICANT

APPLICANT

APPLICANT

APPLICANT

Jorg Kleiber

Filing Date

January 10, 2001

APPLICATION NO

1803-337-999

O9/756,743

APPLICANT

Jorg Kleiber

Filing Date

January 10, 2001

1651

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Qu	A01	4,124,385	11/07/78	O'Horo	P30	111,2	
on	A02	4,124,735	11/07/78	O'Horo	930	1(1.2	
gm	A03	4,126,437	11/21/78	O'Horo	65	21.5	
av	A04	4,360,441	11/23/82	Borrelli et al.	252	62.59	
gu	A05	4,554,088	11/19/85	Whitehead et al.	252	62,4	
an	A06	4,683,195	06/28/87	Mullis et al.	435	ig '	
aw	A07	4,910,148	03/20/90	Sorensen et al.	435	31711	
an	-A08	5,206,568	04/27/93	Björnson et al.	318	548.1	
on	A09	5,210,015	05/11/93	Gelfand et al.	435	6	
an	A10	5,234,809	08/10/93	Boom et al.	435	91.2	
our	A11	5,438,127	08/01/95	Woodard et al.	-36	25.4	
om	A12	5,443,791	08/22/95	Cathcart et al.	422	65	
an	-A13	5,487,972	01/30/96	Gelfand et al.	435	Le	
om-	A14	5,520,899	05/28/96	Woodard et al.	423	277	
an	A15	5,665,554	09/09/97	Reeve et al.	435	4	
gun	A16	5,693,502	12/02/97	Gold et al.	435	91,2	
on	A17	5,763,173	06/09/98	Gold et al.	U35	4	
ow	A18	5,804,375	09/08/98	Gelfand et al.	435	6	
an	_A19	5,898,071	04/27/99	Hawkins	534	25.4	
our	-A20	5,925,573	06/20/99	Colin et al.	434	525	
an	_A21	5,928,958	06/27/99	Pilgrimm	434	526	
ow	A22	5,972,721	10/26/99	Bruno et al.	436	526	
our	A23	5,990,479	11/23/99	Weiss et al.	250	307	
ow	A24	6,136,083	10/24/00	Schmidt et al.	iole	403	
an	A25	6,255,477	07/03/01	Klieber et al.	53 6	25.4	
0	A26	6,274,386	08/14/01	Hartig et al.	43.4	526.	
qui	_A27	6,296,937	10/02/01	Pryor et al.	itel	403	
on	A28	6,368,800	04/09/02	Smith et al.	425	φ´	
an	_A29	2,885,366	05/05/59	ller	514	90	
an	_A30	2,913,419	11/17/59	Alexander	546	80	
an	A31	4,082,905	04/04/78	Stephan et al.	428	692	
2m	A32	4,233,169	11/11/80	Beall et al.	252	42,9	
an	A33	4,280,918	07/28/81	Homola et al.	252	42,51R	
an	A34	4,309,459	01/05/82	Tokuoka	427	219	
000	A35	4,336,310	06/22/82	Okuyama et al.	428	147	
ow	A36	4,395,271	07/26/83	Beall et al.	45	31	

	i	<u>(</u>		•	·		Sheet 2 OI 4
g	NOS LEVERS	7 7	4,564,537	01/14/86	Austin et al.	427	376.4°
	200	938	4,628,037	12/09/86	Chagnon et al.	<b>43</b> %	52%
Ŕ	De Const	A39	4,695,392	09/22/87	Whitehead et al.	252	62.54
	CV-	A40	4,695,393	09/22/87	Whitehead et al.	252	42.54
	gu	A41	4,698,302	10/06/87	Whitehead et al.	435	94
	om	A42	4,751,211	06/14/88	Fleming	502	Ce 4
	an	A43	4,804,561	02/14/89	Tanioka et al.	427	13.0
	an	A44	5,039,559	08/13/90	Sang et al.	427	213.3
	om	A45	5,055,194	10/08/91	Goetz et al.	210	435
	om	A46	5,075,430	12/24/91	Little		75.41
	an	A47	5,076,950	12/31/91	Ullman et al.		62,518
	an	A48	5,155,018	10/13/92	Gillespie et al.		23. 1
	an	A49	5,217,804	06/08/93	James et al.		329
	an	A50	5,236,623	08/17/93	Chevallier	516	82
	am	A51	5,279,936	01/18/94	Vorpahl	435	6
	on	A52	5,312,485	05/17/94	Wason et al.		467
	Ju	A53	5,316,699	05/31/94	Ritter et al.	252	584
	241	A54	5,340,393	08/23/94	Jacobson	104	
	On	A55	5,346,994	09/13/94	Chomczynski	530	419
	ann	A56	5,368,933	11/29/94	Aoki et al.	428	329
	an	A57	5,389,482	02/14/95	Okano et al.		106.2
	an	A58	5,395,498	03/07/498	Gombinsky et al.		464
	an	A59	5,470,660	11/29/95	Misawa et al.	428	463
	on	A60	5,512,332	04/30/96	Liberti et al.		550
	ou	A61	5,512,405	04/30/96	Misawa et al.	430	104.2
	ow	A62	5,578,238	11/26/96	Weiss et al.	252	62,52
	9m	A63	5,597,531	01/28/97	Liberti et al.	422	57
	our	A64	5,599,627	02/04/97	Aoki et al.	428	403
	an	A65	5,610,274	03/11/97	Wong	530	338
	on	A66	5,648,170	07/15/97	Okano et al.	428	403
	Om	A67	5,660,984	08/26/97	Davis et al.	#B5	6
	an	A68	5,662,824	09/02/97	Sang et al.	252	62.54
	gur	-A69	5,683,875	11/04/97	Lichtenwalter	435	6
	an	A70	5,698,271	12/16/97	Liberti et al.	427	550
	Sun	A71	5,705,137	01/06/98	Goerl et al.	423	335
- 11	an	_A72 -	5,734,020-	03/31/98 -	Wong	530	350
	Qu	-A73	5,783,686	07/21/98	Gonzalez	536	25.4
	an	A74	4,672,040	06/09/87	Josephson	436	526
	ow	_A75	4,683,202	07/28/87	Mullis et al.	4>5	91,2
Ì	om	A76	4,699,717	10/13/87	Riesner et al.	53 p	25.4
d	zu-	A77	4,767,670	08/30/88	Cox et al.	4128	4 03
	an	A78	5,057,426	10/15/91	Henco et al.	435	270
	an	_A79	5,582,988	12/10/96	Backus et al.	435	
	gen		5,681,946	10/28/97	Reeve	536	25. F
	ans	A81	5,693,785	12/02/97	Woodward et al.	534	2514

,	10146		•		
	Coly Mar	5,747,663	05/05/98	Colpan et al.	536-251Y
BILLER	7003 A83	5,904,848	05/18/99	Wong et al.	210 500.36
	on so	5,945,525	08/31/99	Uematsu et al.	53 425, 42
	A85	5,990,301	11/23/99	Colpan et al.	53425.4

			POREIGI	N PATENT DOCUMENTS			
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
On-	A86	DE 43 07 262	11/29/94	Germany			
am	A87 ,	DE 195 20 964 🗸 .	12/12/96	Germany			
2000	A88 .	DE 195 37 985 A1	04/17/97	Germany			
on	A89 .	EP 0 757 106 A2	05/02/97	EPO			
<u>an</u>	A90 .	EP 0 811 694 V	10/12/97	EPO			
gn	A91	EP 0 866 071 A2	03/12/98	EPO			
an	A92 .	EP 0 937 497 A2 V	12/23/98	EPO			<del></del>
9W	A93	WO 88/06633	09/07/88	PCT			
an	A94 .	WO 91/12079 ~	08/22/91	PCT			
am	_A95	WO 92/02638	02/20/92	PCT			
9m>	A96	WO 95/06652 /	03/09/95				
ow-	A97	WO 96/41811 -	12/27/96	PCT	<u> </u>		
an	A98 .	WO 96/41840 🗸	12/27/96	PCT			
(2) A	A99 .	WO 97/10331 🗸	03/20/97	PCT			-
an	A100	WO 97/10359 /	03/20/97	PCT			-
ow	A101	WO 99/16781 /	04/08/99	PCT			7
an	A102	WO 99/26605 /	06/03/99	PCT	,		
gw-	A103	WO 99/67371 J	12/29/99	PCT			
om	A104	WO 00/32762 √	11/23/99	PCT	<b></b>		
/av_	A105,	WO 01/37291 J	05/25/01	PCT	-		
9m	A106	EP 0 125 995 ✓	11/21/91	EPO			
gw	_A107	EP 0 652 490 J	05/10/95	EPO			-
ow	A108	JP 5281778 ✓	10/29/93	ЛР	-		
ow	-A109.	JP 7235407 ✓	09/05/95	ЛР			
an	A110	JP 9327290 ✓	12/22/97	JP			
an	A111.	JP 9327291 /	12/22/97	JP			
9w-	A112	WO 91/02811 ✓	03/07/91	PCT			
en	A113	WO 93/10162 /	05/27/93	PCT	9		
an	A114	WO 96/03653 🗸	02/08/96	PCT	_		
ow	_A115.	WO 96/11054 / .	04/18/96	PCT			
an	A116	CA 2223821 J	06/06/96	Canada			ı) -
on	A117	WO 83/03363 🗸	10/13/83	PCT			•
an	<u>A</u> 118	WO 97/29825	08/21/97	PCT			
on	<u>A</u> 119	WO 98/31461 /	07/23/98	PCT			•
ow	A120.	WO 98/31480 /	07/23/98	PCT			-

		OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)
con		BioRobot 9600 "The BioRobot 9600 - An integrated, compact workstation for nucleic acid purification", Qiagen Product Guide (1997) 100-103.
an	A122	Ishida et al., "Development on full automatic DNA, RNA and Plasmid Extraction Instrument Using Unique Magnetic Particles Isolation Technology", Toyobo Product Information.
on	A123	Merel et al., "Completely automated extraction of DNA from whole blood", Clin Chem, (1996) 1285-6.

•	TPE		Sheet 4 of 4
/	011	AY24	Alderton et al., "MAGNETIC BEAD PURIFICATION OF M13 DNA SEQUENCING TEMPLATES," Analytical
	Carry Sall	- 10 ·	Biochemistry, Vol. 201, 166-169, 1992.
	HOM B & SOCO	A) 25	Chou et al., "PREVENTION OF pre-PCR MIS-PRIMING AND PRIMER DIMERIZATION IMPROVES LOW-COPY-NUMBER AMPLIFICATIONS," Nucleic Acids Research, Vol. 20, No. 7, 1717-1723, 1992.
KA	bour	W126	Dang et al., "OLIGONUCLEOTIDE INHIBITORS OF Taq DNA POLYMERASE FACILITATE DETECTION OF
	DADEN	A127	LOW COPY NUMBER TARGETS BY PCR," JMB, Vol. 264, 268-278, 1996. /  Jakobi et al., "FILTER-SUPPORTED PREPARATION OF ÿ PHAGE DNA," Analytical Biochemistry, Vol. 175, 196-
	on	AIZI	201, 1988.
	gur	A128	Marko et al., "A PROCEDURE FOR THE LARGE-SCALE ISOLATION OF HIGHLY PURIFIED PLASMID DNA USING ALKALINE EXTRACTION AND BINDING TO GLASS POWDER," Analytical Biochemistry, Vol. 121, 382-387, 1982.
	and	A129	THERMUS aquaticus ARE POTENT INHIBITORS OF ENZYME ACTIVITY," Journal of Immunological Methods, Vol. 172, 147-163, 1994
Į	an	A130	Vogelstein et al., "PREPARATIVE AND ANALYTICAL PURIFICATION OF DNA FROM AGAROSE," Proc. Natl. Acad. Sci, USA, Vol. 76, No. 2, 615-619, 1979.
	au	A131	Boom et al., J. Clin. Microbiol. 28:495-503 (1990) /
	an	A132,	Chapter 2 (DNA) and Chapter 4 (RNA) of F. Ausubel et al., eds., Current Protocols in Molecular Biology, Wiley- Interscience, New York (1993)
Ì	m	A133	Chen et al., Anal. Biochem. 101:339-341 (1980)
٠	ow	A134	Kirk-Othmer Encyclopedia of Chemical Technology, Fourth Edition, Vol. 6, pp. 773-775./
Ī	SW	A135,	Wirth et al., Science 275:44-47 (1997)
•	gm	A136	Database CAS online, AN 126:182277, Uematsu et al. 'Magnetic carriers for the separation of nucleic acids and methods of using them'. Jpn. Kokai Tokkyo Koho, 9 pp. Jan. 21 1997, abstract (EP 0 757 106 A2 corresponding thereto in English is enclosed).
	am	A137	Database CAS online, AN 126:86772, Kleiber et al. 'Magnetic particles and their use for isolation of biological materials'.  Ger. Offen., 9 pp. Dec. 12, 1996, abstract.
	am	A138	Bischoff et al., "Nucleic Acid Resolution by Mixed-Mode Chromatography", J. Chromatog. (1984) 296:329-337.
.	ow-	A139	Crowther et al., "High Performance Liquid Chromatographic Separation of Oligonucleotides and Other Nucleic Acid Constituents on Multifunctional Stationary Phases", J. Chromatog. (1983) 282:619-628.
	gm	A140	Edwardson et al., "Separation and purification of oligonucleotides using a new bonded-phase packing material", J. Chromatog. (1991) 545:79-89.
•	ow	A141	Kirk-Othmer Encyclopedia of Chemical Technology, (1997) Fourth Edition, Vol. 21, pp. 1021-1022.
	ow	A142	Macherey-Nagel, Macherey-Nagel homepage on the Internet on Jul. 9, 2003, at http://www.macherey-nagel.com
	an	A143	McLaughlin, L., "Mixed-Mode Chromatography of Nucleic Acids", Chem Rev (1989) 89: 309-319.
ĺ	on	A144	Northrop et al., "Preparation and Evaluation of a Bimodal Size-Exclusion Chromatography Column Containing a Mixture of Two Silicas of Different Pore Diameter", Anal. Chem. (1991) 63:1350-1354.
	an	A145	Promega, Technical Bulletin No. 292 Wizard .RTM. Plus Series 9600 .TM. DNA Purification System, (Promega Corp.) (Sep. 1998).
	an	A146	Promega, Technical Bulletin No. 225 Wizard .RTM. Plus SV Minipreps DNA Purification System, (Promega Corp.) (Sep. 1999).
Į	Ju-	A147	Promega, Technical Bulletin No. 259 Wizard .RTM. PureFection Plasmid DNA Purification System, (Promega Corp.) (Sep. 1999).
Į	Sir	A148	QuantiBlot, QuantiBlot Human DNA Quantitation System, PE Applied Biosystems, Feb. 5, 1996, pp. 1-5 (http://www.pebio.com/fo/773503/773503. html).

EXAMINER	Hi.	SILA	DATE CONSIDERED	2/4/04
	W	$-\omega_{I}$	L	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.